Amendments to the Specification:

Please replace the paragraph beginning at page 6, line 11, with the following rewritten paragraph:

The block diagram of FIG. 2 provides a functional overview of a presently preferred embodiment of the telephone system [200]100 in accordance with the present invention. Stations S1 and S2 and central offices 50 and 75 are as described in relation to FIG. 1. Stations S3 and S4, and central offices 150 and 175 are similar to stations S1, S2 and central offices 50, 75, respectively. However, rather than being connected to one another through toll switches, as in the conventional long distance connection of FIG. 1, stations such as stations S1 and S2 are connected through ITGs 200 and 201 to a packet-based communication network 202, such as the Internet 202.

Please replace the paragraph beginning at page 6, line 19, with the following rewritten paragraph:

Each ITG 200 or 201 includes a network card 204 which is connected to the [i]Internet 202 and, inter alia, provides the digital packets of multiplexed telephone calls which are passed onto the Internet 202. The new, multiplexed, packets are preferably organized as set forth in greater detail in relation to the discussion of FIGS. 5, 6, and 7 below. The network card 204 is also connected through a bus 206 to a controller 208 which oversees operation of the ITG, to a digital signal processor (DSP) 210 which provides filtering and compression of digitized voice signals, to a buffer 212 which "plays out" received telephone calls, and to a telephony processor 214 which terminates calls, processes signals and converts telephone signals from the sets S1-Sn

between analog and digital form. The controller controls operation of a multiplexer/demultiplexer 203 which combines various voice messages onto a single connection and also controls operation of the playout buffer 212. In the new telephony system, a telephone call originating at station S1, for example, would be routed to a central office 50 and, from there, to an ITG 200, located, for example, in Los Angeles. At the source ITG 200 the telephone call from station S1 ~~or S3~~ would be multiplexed with a telephone call from station S3, or another station, through the Internet 202 to another, destination, ITG 201, located in New York, for example, where the calls are demultiplexed, fed to a playout buffer 212 and, in the end, delivered by a telephony processor 214 to station S2 or S4. Once such a connection is established between ITGs, various users may be added to or deleted from the connection, with each user's virtual connection constituting a channel, but the connection's lifetime is terminated only when all users are disconnected from the system. In order that channels may be re-used when one user terminates a call each user is bound to a channel for the duration of their call.

Please replace the paragraph beginning at page 8, line 23, with the following rewritten paragraph:

In this preferred embodiment, each active user is represented by a data block within each packet. A one word header 302 precedes each block of data 304[,]. Fig. 3 shows two blocks of data 304 labeled payload 1 and payload 2, respectively. An ITG parses the blocks until the end of the RTP packet is reached to determine the number of blocks 304 within the packet 300. Each header 302 includes eight bits for channel identification, labeled ID. Since each connection may last for days, weeks, or even months, channel IDs will be re-used as various users initiate and

terminate their telephone calls. In order to reduce overhead, the channel ID is kept relatively short. In this preferred embodiment, ID labels 0 to 254 are used as direct identifiers, that is 255 channels are associated with corresponding bit combinations. Channel ID label 255 is reserved as an escape code which permits the header to be expanded in order to expand the length, payload type, or channel ID codings.